

NAVAL AVIATION ENTERPRISE

Warfighting partners working together to efficiently deliver the right force with the right readiness at the right time.

HQMC
ASL



Current Readiness (CR) Overview



Commander's Course





Situation

- **Experiencing Most Conservative Fiscal Environment**
- **Naval Aviation Costly & Marine Aviation is 40% of Naval Aviation**
- **Maintaining Future Combat Readiness Requires Efficient and Effective Resource Utilization - Readiness Cannot be Used as a Pretense to Justify Wasteful Behaviors (Result is Loss of Resources and REDUCED Readiness)**
- **Current Readiness (CR) Process Within the NAE Provides Framework for Addressing Readiness Issues Within Each Type/Model/Series (TMS)**
 - Obtain Help from Enterprise
 - Share Successes / Best Practices Across Enterprise

USMC Cannot Be Wasteful Under Pretense of Preserving Operational Effectiveness



O'Level Maintenance

Current

- Anxiety Based Behavior
- Short-term Results vs. Long Term Consequences
- Minimal Comprehensive Technical Skill
- Encouraged to Improvise
- Resource Developments by Moving People / Aircraft
- Disparate and Stove-piped Aviation Logistics Resource Management Efforts

State

Required

- Trust Based Behaviors
- Make Decisions Based on Understanding of Short and Long term consequences
- Understand how Maintenance Decisions Impact all Departments w/in Organization
- Develop Technical Workforce
- Focus on Building Capability and Capacity to ensure High Reliability
- Core Capable MAG based on Core Capable Squadrons
- Stability as a Necessary Condition
- Uncertainty Management
- ETHOS - *"Do it Right"; "Quality First"*

Barriers

- System Encourages Crisis Management - Swashbucklers vs. Farmers
- 'Doing the Right Thing' makes Unit Look Worse For a Period of Time
- Key Billet Holders Optimize Their Corner of Maintenance Department

Quality A/C Reliability is An Enabler for Production (CMC)



Baseline For Growth



- **ID Critical Tasks and Build Capability**
 - Training
 - Teams and Leadership
 - Technical Procedures
- **A/C Utilization**
- **Operational Environment (How / Where)**
- **How maintenance is Conducted**
- **CR Metrics Modifications**
 - Metrics Related to Root Cause Analysis across Naval Aviation
- **Center of Excellence Tied to Wings**
- **Development and Seamless Integration of Replication Process**



Baseline For Growth

- **Quarterly Discussions on Strategic and Enterprise Level Issues**
- **Reduce Cycle Time (Maintenance Overhead) and Increase Time on Wing**
- **Battle space Preparation (process improvement understanding)**
- **ROE for Maintenance Department**
 - **Maintainers Fatigue Management (reduce performance errors)**
 - **Standardized and Promulgated Maintenance Dept / TMS SOP's Desk Top Procedures**
- **Availability Management vice "Availability"**
- **Scheduled Events (set measurement tempo) used as a basis for metrics timing vice arbitrary (AMSRR/RBA/RFT)**
- **O-I Supply Metrics MUST be Readiness Aligned**
- **Incentivize Enterprise Ownership / Behavior while Removing Disincentives**



Naval Aviation ~~Enterprise~~



A WARFIGHTING
PARTNERSHIP



SINGLE PROCESS OWNER



NAVY
Research, Development & Acquisition



SINGLE FLEET DRIVEN MEASURE OF SUCCESS:

AIRCRAFT READY FOR TASKING AT REDUCED COST



MISSION & VISION STATEMENT

**Advance and Sustain Naval
Aviation Warfighting Capabilities
at an Affordable Cost; Today and
in the Future.....**



NAE...Bottom Line Upfront



Naval Aviation

Focused on delivering combat en



Naval Aviation Enterprise

***Supports the delivery of combat effects
...Better, Smarter, Faster***



You

***The driving force behind the Naval
Aviation Enterprise***

***Our strategic environment and fiscal realities require
us to continuously pursue process improvement...
everywhere***



CR Improvement Program

Marine Corps Aviation Current Readiness Improvement Program

https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/current_readiness/USMC%20Orders/Forms/AllItems.aspx

- Efficiently Use Available Resources
- Improve Current Readiness and Integrate w/NAE
- Mission
 - o Optimize Material Resource Allocations and Expenditures
 - o Minimize Logistics Downtime and Delays
 - o Achieve Required Readiness for Warfighting Missions
- Intent
 - o Provide Operational Commanders More Accurate and Actionable Information
 - Identify and Assess Readiness Drivers
 - Isolate Root Causes
 - Shape Future Resource Decisions
 - o Provide More Precise Measures of Readiness, Entitlement, and Deficiencies
 - o Provide Better Responsiveness and Support Aligned to Readiness Goal
 - o Facilitate Aggressive and Proactive Decision Making



Performance Objectives

DC/A Objectives

- Increased Readiness
 - Increased In-Reporting (IR) rates
 - Decreased out-of-reporting (OR) rates
 - Reduced Depot TAT
- Reduced Direct Maintenance Man-hours per Flight Hour (DMMH/FHP)
- Reduced Flight Hour Costs
- Extend Airframe Service Life for legacy aircraft
- Achieve programmed service life for new platforms
- Increase health of organizational and intermediate level maintenance departments

Fight & Train Now...
and Posture The Marine Corps For The Future

- **Increase Aircraft Readiness**
 - **Increase Aircraft Availability**
 - **Increase In-Reporting (IR) rates**
 - **Decrease out-of-reporting (OR) rates**
 - **Reduce Depot TAT**
- **Reduce Workload on Marines**
- **Understand & Manage Costs**
- **Extend Service Life for Legacy Aircraft**
- **Achieve Programmed Service Life for New Platforms**
- **Increase Health of Organizational and Intermediate Level Maintenance Departments**
- **Increase Sortie Generation**
- **Increase Combat Power**
- **Increase Reliability of Aircraft & Components**
- **Increase Reliability of Logistics Process**

Marine Air Board

Unclassified

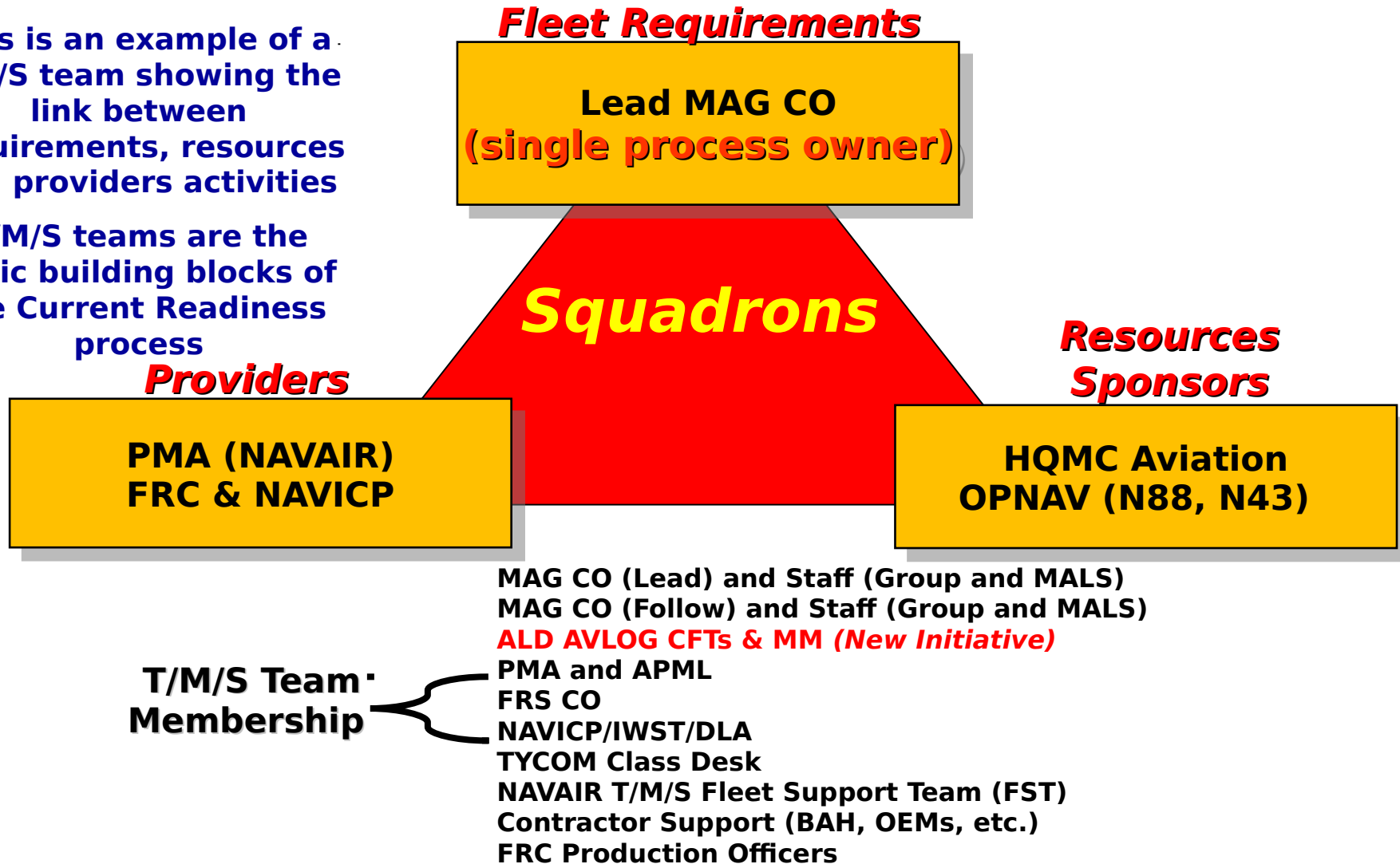
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Type/Model/Series (TMS) Team

This is an example of a T/M/S team showing the link between requirements, resources and providers activities

T/M/S teams are the basic building blocks of the Current Readiness process





Levels of Enterprise

Engagement

• **Flag / General:**

- Lead Naval Aviation / NAE
- Develop NAE strategy
- Represent NAE equities in organizational meetings
- Participate in NAE strategic communications efforts
- Elevate barriers / issues

• **C-5 Command:**

- Lead command
- Warfighters / warfighter support
- Share key messages and themes at squadron-level
- Responsible stewards of allocated resources
- Barrier identification / removal

• **Major Command:**

- Lead command(s)
- Warfighting / Fleet focus
- Materially participate in NAE activity drumbeat
- Resource allocation / CPI
- Process discipline (metrics)
- Barrier identification / removal
- Advocate for the NAE

• **Dept Head and Junior Officer:**

- Lead Marines and Sailors
- Tactician / Manager
- "Fly the Profile"

• **A Marine / Sailor**

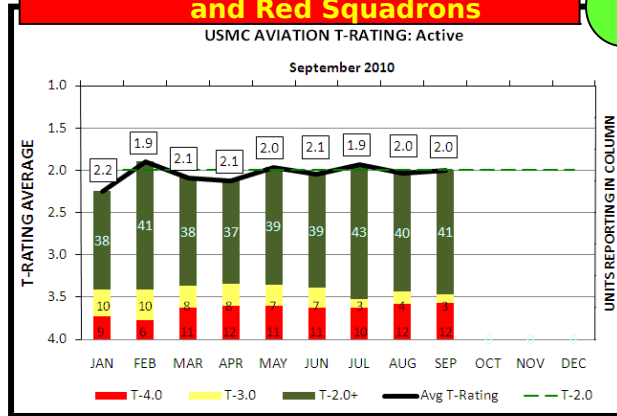
- Deckplate leadership
- AIRSpeed practitioner (as function of rate/MOS and

***Everyone engages the NAE...in varying degrees...but
everyone benefits***



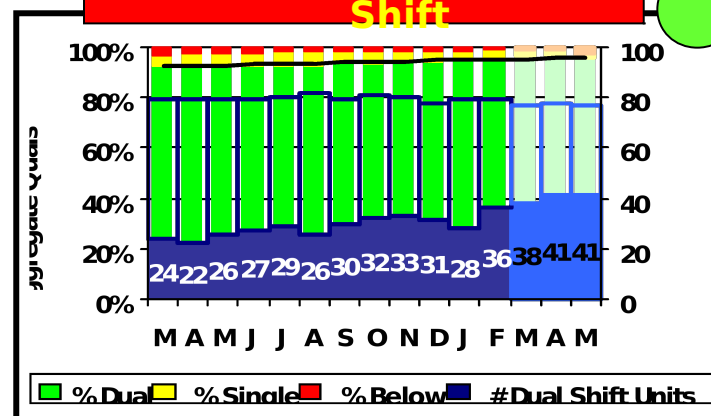
USMC Top Five

Average T-Rating of Green, Yellow and Red Squadrons



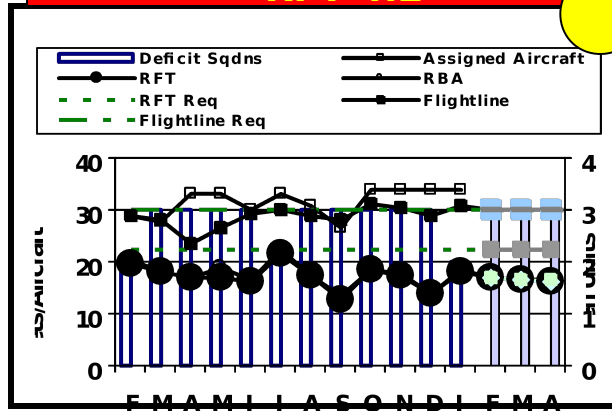
T-2 Rating

2 Dual Shift; 1 Single Shift



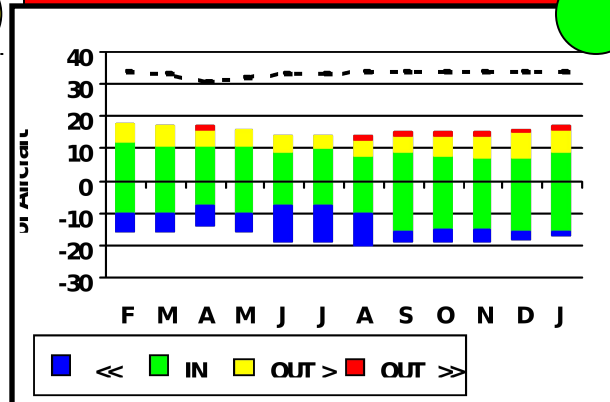
Maintainer Core Competency

GAPS: F/L 0, RBA 4.2, RFT 4.2



RFT Availability

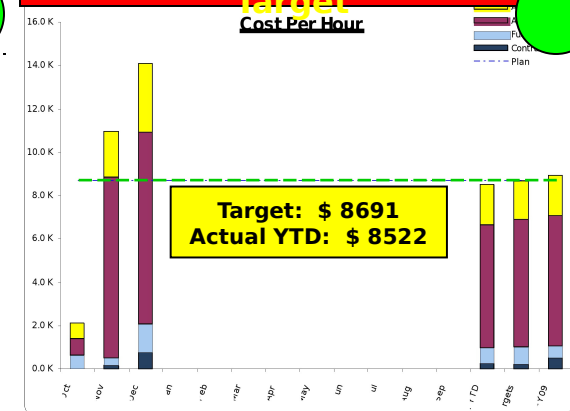
No Issues



Aircraft Life Management

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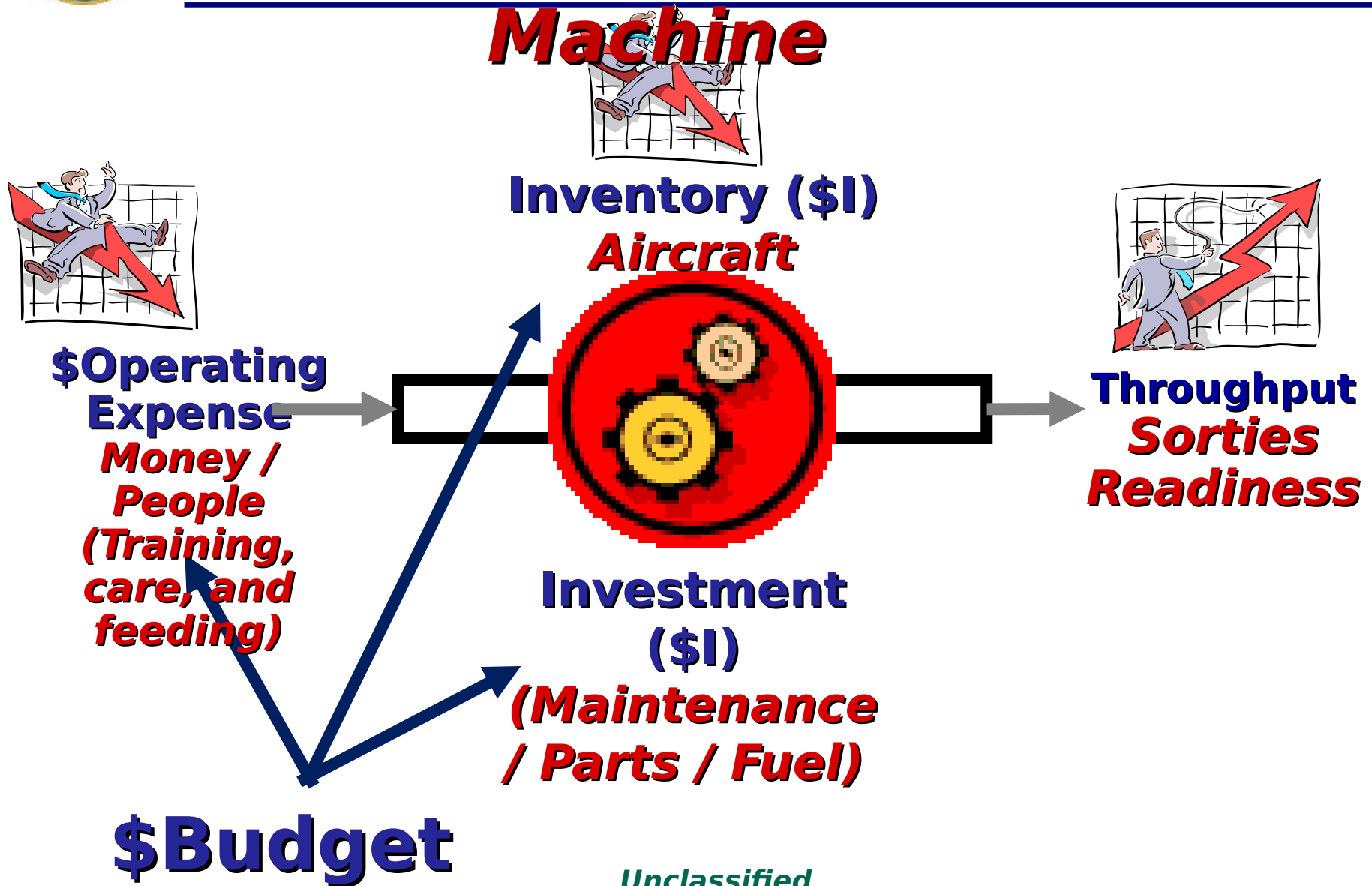
CPY: 1.01 SPI: 1.05
CPH YTD: \$169 Below Target



Cost



Goal Driven Production Machine





CR Supporting Tools

❖ Continuous Process Improvement (aka, AIRSpeed)

- ✓ Theory of Constraints
- ✓ Lean
- ✓ Six Sigma
- ✓ End to End (E2E)

**Industry-proven
best practices**



❖ Used together ...

- ✓ Maintenance - Operations alignment planning
- ✓ Attain Steady State expectations
- ✓ Better prioritization to work on and execute “right” stuff
- ✓ Inventory is at right spot ... trade inventory for speed of throughput
- ✓ Optimize consumption of material/labor ... drive out variance

Products are delivered to the fleet faster at reduced cost



End-to-End (E2E) ***Basics***



- **E2E Alignment is Center Piece to the Success of Marine Aviation's Transformation Strategy**
 - **Focuses on What Inhibits Readiness**
 - **Examines Specific Process That Impact Effective Sortie Generation at:**
 - **Aircrew Production**
 - **Flightline**
 - **Supporting Logistics Chain [Organizational - Intermediate - Depot (O-I-D)]**
- **Focused on TMS Throughput (Readiness Production / Top Five)**
- **Provides Analysis Tools to:**
 - **Quantify the Impact of Shortfalls**
 - **Manage Uncertainty**
 - **Assist in Root Cause Analysis**



End-to-End (E2E)

Basics



- **Aligns Processes and Optimizes Performance at :**
 - **Organizational**
 - **Ops/Maintenance Interface, Aircrew Production Core, O-I Interface, Weapon System Availability and Reliability**
 - **Intermediate**
 - **Capability-Based Production, Reliable Replenishment of Mission Sets, Cost Gaps Analysis**
 - **Depot Levels/OEM**
 - **Induction of Retrograde Closely Aligned to Fleet Demand, Reliable Replenishment of Mission Sets**

Expectation

An Operations - Maintenance - MALS Team with Cognitive Skills Needed to Perform Effective Time / Resource Management, In An Environment Characterized by Uncertainty and Resource Constraints - Sustained

E2E Starts With Squadron Ops and Maint; Ends With FRC's, OEM 's and Supporting Agencies



Understand the System

Core Capable Unit

... with a global perspective

End-to-End AIRSpeed
Designed & aligned to
create reliable throughput
to TMS team RFT
requirements

3 Aircraft Detachment
11 Pilots [6 TPC/5 CP (T2P or T3P)]
9 Crew Chiefs
9 Loadmasters

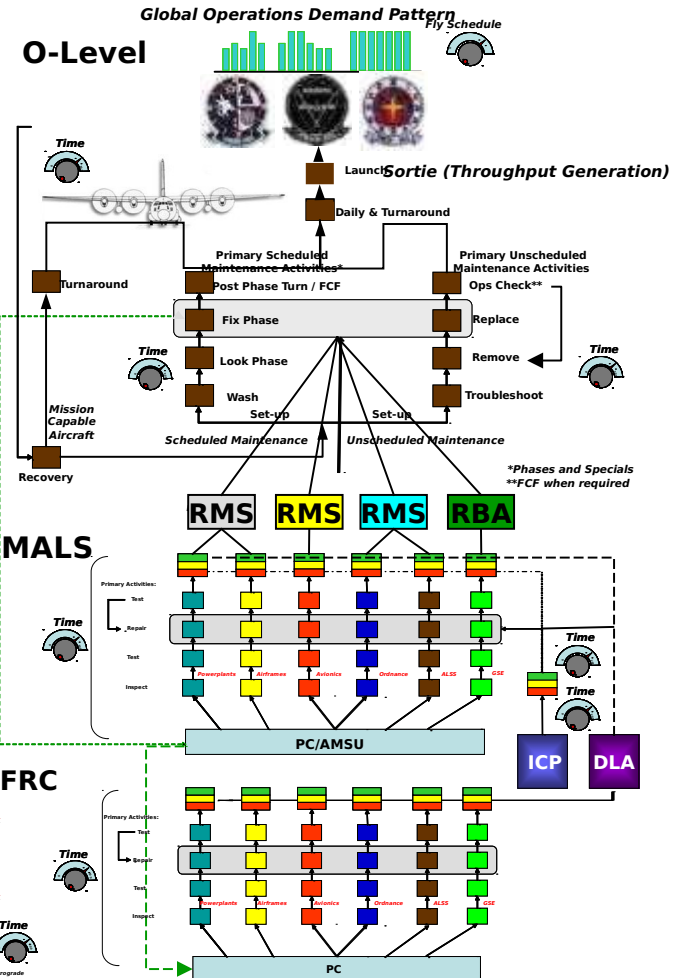
GOAL
Core Capable
Unit
Global Perspective

Community Health
it Readiness
Goals vs. Actual

SMC TOP 5 METRICS



Understand how the System is Measured



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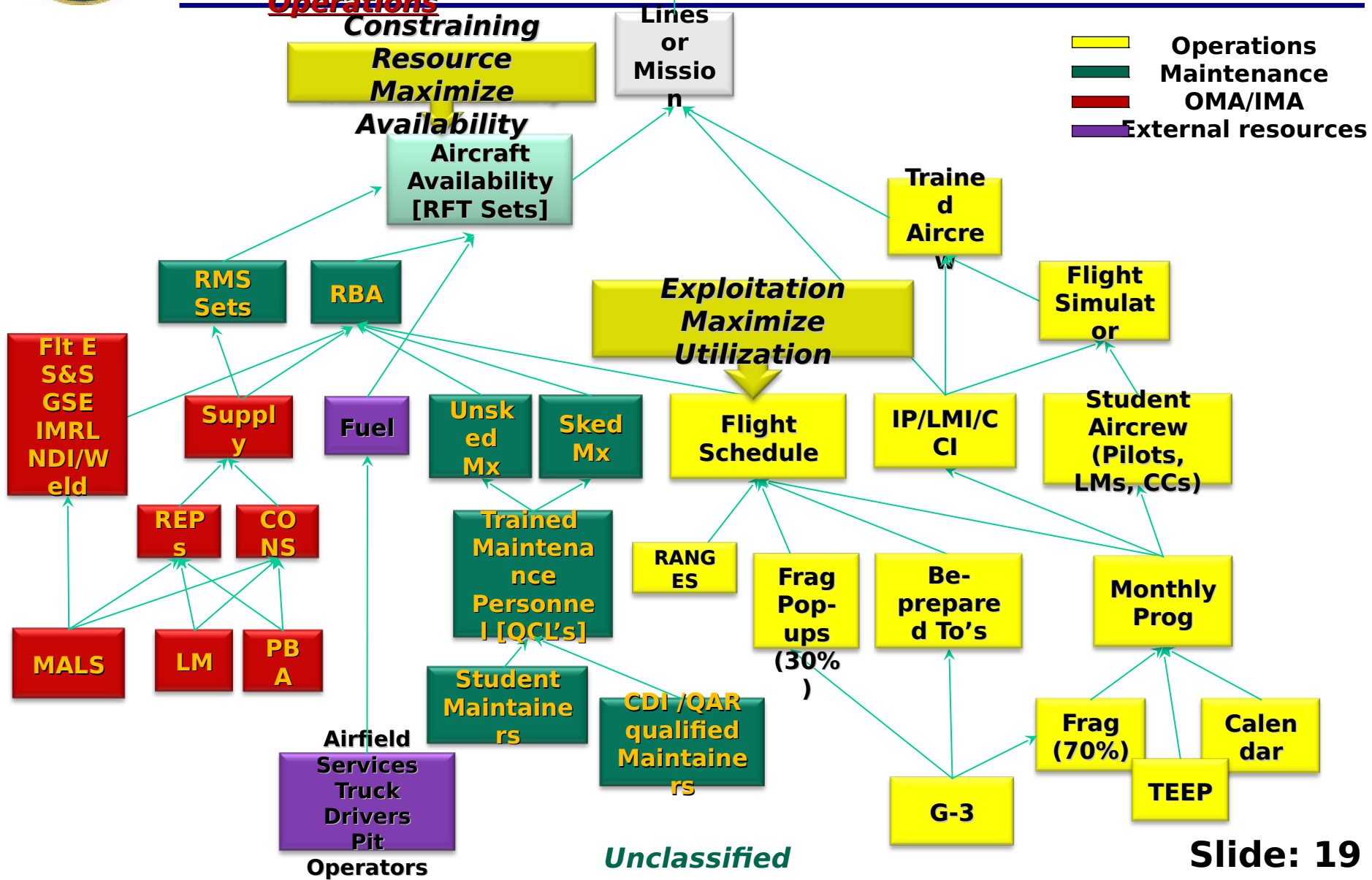
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Achieving Readiness *A Series of Assembly Operations*

Unit that is
Mission
Capable &
Mission
Ready

The Goal





Role of Flying Squadron

Overall:

- Collaborate
- Adhere to Rules of Engagement
- Identify and Address Obstacles to Design
- **Transparency - Open and Honest Dialogue Regarding Operations / Maintenance Contract**
- **Frequent Communication of Requirements / Shortfalls**

Specifically:

- **Site Leadership**
 - Commit Appropriate Resources
 - Address Behavior – Make Necessary Changes re: Policies, Measurements, and Roles & Responsibilities
- Contribute with SME's
- **Maintenance Department Understands Variability Impacts on Daily Flight Schedule**
- **Operations Department Understands Variability Impacts on Daily Flight Schedule**
- **Squadron Leadership (CO/XO, OpsO and AMO) Ask Right Questions and Take Appropriate Actions**
- **Maintenance and Operations Department Collaborate and Align Aircraft Availability with Capacity**
- Maintenance Analyst Update and Disseminate SCIR-based Maintenance Metrics Across Squadron
- Squadron Maintenance Dept and MALS Use SCIR-Based Metrics to Reduce Gaps

MALS and Flying Squadron MUST be Integrated and Focused on Goals



What Works and What Doesn't

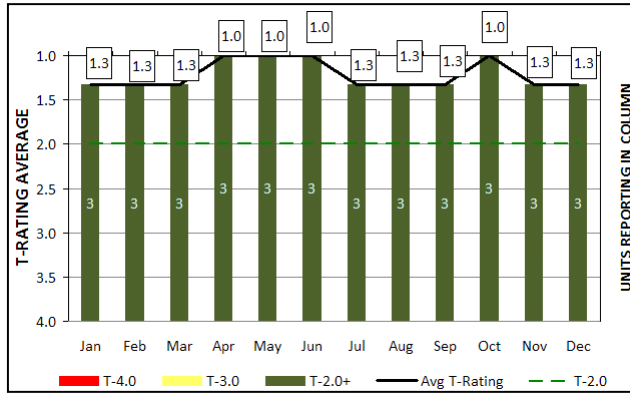


- **What Works:**
 - Think about the entire system
 - Open kimono within the squadron and between the MALS
 - Stick to the Rules of Engagement
 - Use the metrics to make decisions
 - Learn to ask the right questions
- **What Doesn't Work:**
 - Individual agendas
 - Silver-bullet remedies
 - When this is over, we'll return to business as usual
 - Criticism without recommendations





What Should Be Observed & Timeframe



Deliverables

- **Schedule (contract) to maximize aircraft availability and utilization**
- **Understanding of Instructor Pilot (and CC / LM) capacity**
- **Buffering against variability in planning, scheduling and execution**

Expectations (60 days or less)

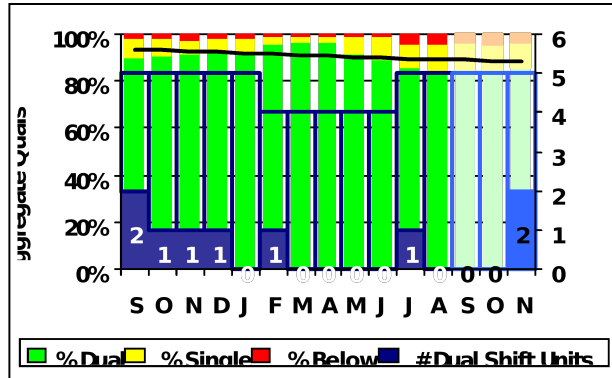
- **Increase Aircraft Availability and Utilization (Meeting Mission Requirements consistently)**
- **Increased range of IP/CP qualifications**
- **Fewer daily schedule modifications (changes in aircrew and aircraft)**
 - **Long Range: More predictive long range planning (FHP as identified through SBTP/CMMR and OP20)**

ACC / T-Rating

Unclassified



What Should Be Observed & Timeframe



Deliverables

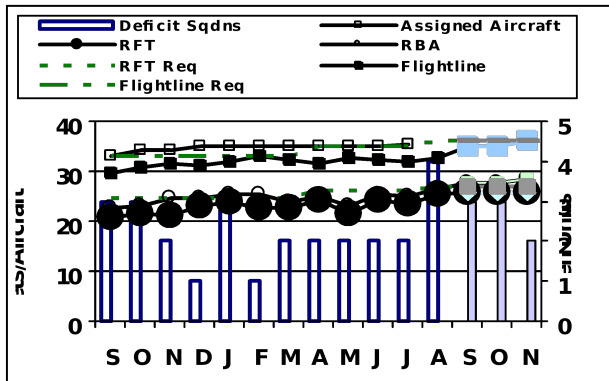
- **Schedule (contract) to maximize aircraft availability and utilization**
- **Time to Train Timelines for Maintenance Quals**
- **Identification of manpower “buffers” to protect against variability**
- **Analysis of Scheduled and Unscheduled Maintenance Timelines**

Expectations (60 days or less)

- **Training TEEP to meet MOS quals**
- **Identification of when degradation in capability will occur**
- **More predictive timelines for regeneration of Maintenance crews**
- **Focused improvement opportunities for scheduled and unscheduled maintenance**
 - **Joint Project Opportunities with MALS**



What Should Be Observed & Timeframe



Deliverables

- Ready Mission Set (RMS)
Buffers sized at MALS
- Production of components geared toward RBA/RFT requirements
- Analysis of material consumption patterns among like TMS Squadrons
- Analysis of RFI/BCM performance of MALS

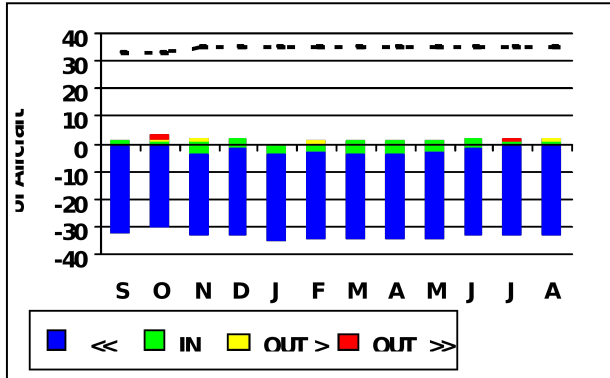
Expectations (60 days or less)

- Alignment of MALS production to support RBA, RBM and RMS set requirements
- Standardized Pack-Up procedures to support In-Garrison requirements, TEEP requirements, and Short Notice, Contingency Deployments
- Increased collaboration with like TMS MALS on repair capability

RFT
Unclassified



What Should Be Observed & Timeframe



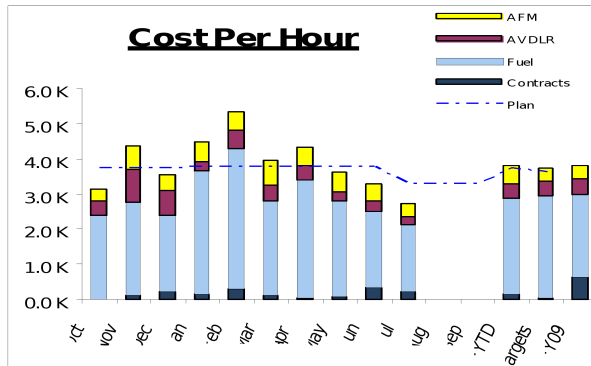
Deliverables

- Schedule that allows for increased rotation of aircraft inventory
- Analysis of Bad Actors and Repeat/Recur Systems

Expectations (60 days or less)

- Improving material condition for all aircraft on hand due to better scheduling (buffer management)
- Distribution of flight hours across all available aircraft
 - Relieves Pressure on “Fly/Fix” Conflict

**** Long Term: Improving material condition for aircraft entering into planned depot maintenance periods (shorter cycle times)**



Deliverables

- **Analysis of material consumption patterns among like TMS Squadrons**
- **Analysis of Bad Actor & Repeat/Recur Systems**
- **Analysis of variation causing “re-fly’s” (Fuel charges)**

Expectations (60 days or less)

- **More reliable material consumption patterns**
- **Improved analysis of troubleshooting at O Level/MALS**

- ** Long Term: Opportunity for validation of T&R requirements**
- ❖ Simulator Usage**
- ❖ Batch Production vs. more frequent ops**



Making a Difference? Yes

❖ Recovered unfunded flight hours for training (\$33M)

- ✓ Efficiencies recovered more than 6,100 hours within the OP-20 budget.
- ✓ At a nominal \$5500/FH, this created more than \$33M in training opportunities

**More training
time airborne**

❖ AV-8B operating maintenance cost avoidance \$6.2M+ during FY10; AVDLR earned value \$21.8M / 19.9% higher than

- ✓ Increased component repair rates and improved engine time

**More
shadows on
the ramp**

❖ EA-6B avg FY-11 CPFH reduction of \$504.00

- ✓ At 7,594 flight hours flown through July, results in \$3.8M savings

❖ MV-22 OP-20 FHP CPFH decreased from an FY 10 actual monthly avg \$11, 648 to FYTD FY11 monthly avg of \$9,123

- ✓ At \$2,525 CPFH monthly average savings - 21% reduction
- ✓ With 26,400 flight hours flown through Jul = ~\$66.7M savings

**More money
for parts,
equipment,
labor and fuel**

❖ Developed Maintenance Personnel Readiness metric

- ✓ Measures certifications and qualifications even to the detachment level, truly reflecting a unit's maintenance personnel overall readiness

**Better trained, more qualified workforce to
meet any mission**

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Points of Contact

Naval Aviation Enterprise (NAE) USMC Executive Coordinator

Col Carmine Borrelli
carmine.borrelli@usmc.mil
(703) 693-9772

Readiness Leadership Team Leads

Col Roy "Ozzie" Osborn
roy.osborn@usmc.mil
(703) 693-8595

Current Readiness Coordinators

Col Walt Watson
walter.watson@usmc.mil

(703) 693-9774
Marc "Bone" Huckabone
marc.huckabone.ctr@usmc.mil
(703) 693-9705

DC(A) NAE Executive Consultant

Michael "Duffy" Dyer
michael.a.dyer1.ctr@usmc.mil
(703) 614-3132



Right Force, Right Readiness, Right Time

Fight & Train Now...

Posture For The Future....

Questions ?

www.public.navy.mil/airfor/nae/

New

